DOCKET NO.: RUBC-0046

Application No.: 09/763,329

Office Action Dated: November 5, 2003

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-10: (Canceled)

11. (Presently Amended) A method of making high methionine corn seeds_that produce saturation levels of 10 kDa zein regardless of in a plant with the dzr1 negative dominant allelic composition of the seed, comprising the steps of:

a) transforming cells of a <u>dzr1</u> negative dominant allelic corn plant with a vector comprising a chimeric gene encoding a <u>maize</u> 10 kDa zein, wherein the chimeric gene comprises a <u>maize</u> 10 kDa zein coding region operably linked at its 5' end to a promoter, and at its 3' end to a heterologous 3' UTR;

b) regenerating from the transformed cells a fertile transgenic corn plant expressing the chimeric gene; and

c) producing seeds from the plant, wherein the seeds express the chimeric gene, thereby producing saturation levels of the 10 kDa zein in a plant with regardless of the dzr1 negative dominant allelic composition of the seed.

- 12. (Canceled)
- 13. (Previously Presented) The method of claim 11, wherein the chimeric gene comprises a promoter selected from the group consisting of a 27 kDa zein gene promoter, a 27 kDa (O2) zein gene promoter, a 10 kDa zein gene promoter and an 18 kDa zein gene promoter.
- 14. (Previously Presented) The method of claim 13, wherein the chimeric gene comprises a 10 kDa zein coding region operably linked to a 27 kDa zein gene promoter and a CaMV 35S gene 3' UTR.

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15. (Canceled)

16. (Previously Presented) The method of claim 14, wherein the chimeric gene is

contained in vector pJM2710.

17. (Previously Presented) A fertile transgenic corn plant produced by the method

of claim 11.

18-21: (Canceled)

22. (Previously Presented) The method of claim 11, further comprising the step of

breeding the fertile transgenic corn plant with another corn plant to produce high methionine

seed-producing progeny corn plants.

23. (Previously Presented) A high methionine seed-producing progeny corn plant

produced by the method of claim 22.

24. (Canceled) The high-methionine seed-producing corn plant of claim 23,

which comprises a dzr1 dominant negative allele.

25. (Presently Amended) A fertile, transgenic corn plant that produces high

methionine corn seeds regardless of in the presence of the dzrl negative dominant allelic

composition of the seed, transformed with a vector comprising a chimeric gene encoding a

maize 10 kDa zein, wherein the chimeric gene comprises a maize 10 kDa zein coding region

operably linked at its 5' end to a promoter, and at its 3' end to a heterologous 3' UTR.

26. (Previously Presented) The transgenic corn plant of claim 25, wherein the

chimeric gene comprises a promoter selected from the group consisting of a 27 kDa zein gene

promoter, a 27 kDa (O2) zein gene promoter, a 10 kDa zein gene promoter and an 18 kDa

zein gene promoter.

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27. (Presently Amended) The transgenic corn plant of claim 26, wherein the chimeric gene comprises a maize 10 kDa zein coding region operably linked to a 27 kDa zein gene promoter and a CaMV 35S gene 3' UTR.

- 28. (Previously Presented) The transgenic corn plant of claim 27, wherein the chimeric gene is contained in vector pJM2710.
- 29. (Previously Presented) A high methionine seed-producing progeny corn plant produced by breeding the fertile transgenic corn plant of claim 25 with another corn plant.
- 30. (Canceled) The high methionine seed-producing progeny corn plant of claim 29, comprising a *dzr1* dominant negative allele.